FROM THE ARMY ACQUISITION EXECUTIVE

Discovering The Best Path To The Future

We know what we know. How do we find out what we don't know? There are really two ways. In combat operations, the answers are found at the price of casualties. In experiments, the answers are found without that high cost. During experimentation, we explore the most effective use of new equipment and technology advances to develop doctrine and concepts of operations. Here we cooperate with other Services and allies to discover the best path to the future.

Several years ago, the Army embarked on a program of experimentation to gain insights that are guiding our top-level decisions. Our advanced warfighting experiments, combined with our battle labs, advanced concept technology demonstrations, advanced technology demonstrations, and other plans and studies, are helping us design and build the future Army. For example, compelling experimental success in advanced warfighting experiments such as Task Force XXI and Division XXI allowed us to make decisions that accelerated the pace of modernization and digitization of our heavy forces.

We also recognize the value of experimentation as a means to interact with our sister Services in developing doctrine and materiel to promote interoperability. Future warfare demands that we fight as a joint team. In fact, we believe that joint experimentation and increased integration of our common developmental efforts are central to that process. We have many mechanisms in place to foster and support various cooperative efforts of development and experimentation among our sister Services. Joint experimentation offers significant potential to save time and money while increasing total force capabilities.

This fall, the Joint Contingency Force Advanced Warfighting Experiment (JCF AWE) at Fort Polk, LA, will take lessons learned and core systems from prior experiments and rapidly apply them to modernize our light forces. The experiment's focus is to improve capability in command, control, communications, computers, intelligence, surveillance, and reconnaissance; Military Operations in Urban Terrain; and early entry. Articles in this issue provide additional details.

This is the first joint experiment endorsed by the Joint Forces Command, a command created from the U.S. Atlantic Command in October 1999 to serve as the executive agent for joint warfighting experimentation to include efforts to improve our interoperability and effectiveness with multinational partners.

The Joint Experimentation Program, another important initiative, is designed to complement, not replace, existing Service experimentation efforts. The debut event within the Joint Experimentation Program for this year will be Millennium Challenge 00. This experiment provides an overarching joint context and scenario for the integration of four Service-based experiments into a single joint event. The Service events are the Army's JCF AWE, the Navy's Fleet Battle Experiment Hotel, the Air Force's Joint Expeditionary Force Experiment 00, and the Marine Corps' Millennium Dragon.

Our aim is to achieve full-spectrum dominance so our forces can operate unilaterally or in combination with multinational and interagency partners to defeat any adversary and control any situation across the full range of conflict. With full-spectrum dominance, our forces will be able to conduct prompt, sustained, and synchronized operations with combinations of forces tailored to specific situations and with freedom to operate in all domains—space, sea, land, air, and information. Let's take a look at some of our joint programs for which the Army is the lead Service or jointly executes the program.

• The Joint Biological Point Detection System will be installed on vehicles, ships, and at fixed locations to automatically detect and identify biological warfare agents.

• The Joint Service Lightweight NBC Reconnaissance System will provide field unit commanders with intelligence for real-time field assessments of nuclear, biological, and chemical hazards.

• The Joint Service Lightweight Integrated Suit Technology System is in development as the next generation chemical/biological protective system. It will provide our warfighters with the highest level of protection while reducing heat strain, weight, and bulk to an absolute minimum.

• The Army Common Ground Station (CGS), housed in a lightweight multipurpose shelter mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV), is the commander's situational awareness, battle management, and targeting tool. First used during Operation Desert Storm, CGS receives, stores, processes, manipulates, displays, and disseminates near-real-time radar imagery data from the Air Force's Joint Surveillance Target Attack Radar System aircraft and many other systems as well.

• The Joint Tactical Ground Station disseminates warning, alerting, and cueing information on theater ballistic missiles and tactical events throughout the theater by using existing communication networks.

• The Joint Tactical Terminal is an intelligence and targeting information dissemination terminal for all Services. It is the critical data link to battle managers, intelligence centers, air defense, fire support elements, and aviation assets.

• The Joint Land Attack Cruise Missile Defense Elevated Netted Sensor or JLENS is an airborne sensor platform that provides over-the-horizon land attack cruise missile defense for joint forces.

• The XM777 Joint Lightweight 155mm Howitzer will provide close and deep fire support to Army light forces and Marine Corps maneuver forces.

• The Joint Tactical Radio System (JTRS) had its genesis in lessons learned from inter-Service communication problems during the Grenada Operation and Operation Desert Storm. JTRS is a family of radios that builds on a common open architecture for interoperability.

These and other programs, together with our advanced warfighting experiments, will help us achieve the full potential of Joint Vision 2020. As stated by Chairman of the Joint Chiefs of Staff GEN Henry H. Shelton, our objective is "a joint force that is persuasive in peace, decisive in war, and pre-eminent in any form of conflict." If we conduct our experiments right, we will discover the best path to the future without paying the ultimate price in soldiers' lives lost.

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